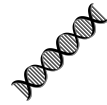


# GM FOODS



## What are Genetically Modified Foods?



### First, what is DNA?

- ▶ Living things are fundamentally made up of **cells**.
- ▶ **DNA** is a material **inside** the **cells** that carries all the information of structure and function of the living thing.
- ▶ DNA determines the traits of the living thing. Each piece of **information** is stored in different **sections of the DNA**. These pieces are called **genes**.



### So, what are GM foods?

- ▶ Genetically Modified Foods refer to the foods harvested from plants which have been genetically modified. (making **changes in the genes** inside the cell)
- ▶ Such changes are performed to improve the quality of food and give traits to the seeds for fighting the harmful insects, weeds themselves after cultivation.

### GM foods in India

In India, **Bt cotton** is the only GM crop, which has been given approval for field cultivation. Apart from Bt cotton, 20–25 GM crops are undergoing open field trial in India.

## The GM Debate

### For

- ▶ Improved farming, cultivation techniques by **increasing outputs** and minimizing costs. (high quality food produced profitably)
- ▶ **Reducing environmental pollution** by controlling the use of insecticides and pesticides.
- ▶ **Improving nutritional value** of foods

### Against

- ▶ Predicting the effects of consuming GM foods and labelling it as 'completely safe' **needs years of research**.
- ▶ Farmers will be forced to buy these **costly seeds** for the sake of increasing the output in their cultivation.
- ▶ The **efficiency** of the modified seeds **may decrease with time**, type of field, etc.
- ▶ **Loss of indigenous varieties** when farmers shift to GM seeds

### Who are we?

We are a team of undergraduates from the Department of Biotechnology, IIT Madras, participating in an international competition called iGEM(International Genetically Engineered Machine).



Team IIT Madras, iGEM 2016

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